ORIGINAL

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BEFORE THE ARIZONA CORPORATION COMMISSION

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IN THE MATTER OF ARIZONA PUBLIC SERVICE COMPANY – APPROVAL OF UPDATED GREEN POWER RATE SCHEDULE GPS-1, GPS-2 AND GPS-3	DOCKET NO. E-01345A-10-0394
IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR APPROVAL OF ITS 2013 RENEWABLE ENERGY STANDARD IMPLEMENTATION FOR RESET OF RENEWABLE ENERGY ADJUSTOR	DOCKET NO. E-01345A-12-0290 **COMMENTS TO STAFF'S RECOMMENDED OPINION AND ORDER**

APS thanks Staff for the October 18 Recommended Opinion and Order but must respectfully disagree with the ROO's conclusion that DE is the least cost renewable kWh. From the perspective of all customers, DE is not the least cost means for APS to acquire renewable energy. DE allows customers to avoid contributing to the very infrastructure that enables the installation and operation of DE in the first place. But the costs don't go away; they only get redistributed. Customers without DE ultimately bear those costs in the form of higher rates. And as more and more DE is installed, more and more costs accumulate for redistribution. This shift of costs from customers with DE to customers without DE is a subsidy.

For the long term, Arizona needs solar energy that is sustainable, not subsidized. Guided by this need, APS requests that the Commission decline the ROO's prioritization of DE in the acquisition of renewable energy. Further, the unprecedented volume of DE in light of current incentive levels makes clear that cash payments are no longer needed to incent DE. Accordingly, APS requests that the Commission end direct cash incentives by adopting APS's originally proposed DE Option One. APS believes that these are necessary preliminary steps to begin discussing other embedded DE incentives in APS's current rate structures and net metering rules. The incentives ensure that DE—and the subsidy that shifts costs from one customer group to another—will continue to expand rapidly.

A sustainable solar future in Arizona means that all stakeholders have a responsibility to understand the true costs and benefits of DE. To accomplish this task, APS intends to convene a multi-session technical conference outside of APS's REST dockets and open to all interested stakeholders. It is APS's intent that the conference results in a collaborative solution resting on three primary pillars: (i) an equitable and balanced distribution of costs and benefits; (ii) subsidies, if any, that are transparent; and (iii) a sustainable means for solar to continue in Arizona. In addition, APS anticipates that previous discussions regarding the least cost means to acquire renewable energy would resume. In light of rapid DE adoption, and the resulting expansion of the DE subsidy, the technical conference would follow an accelerated timetable. The conference would culminate in APS filing either a jointly-prepared solution, or, if the participants are unable to reach a consensus, an application seeking to otherwise address the costs of DE.

Of course, direct cash incentives only concern a portion of the ROO. The ROO addresses numerous other topics and recommends a 2013 RES budget of $108.7 million. In addition to discussing DE and the technical conference, these Comments seek clarification regarding certain non-DE issues as discussed below.

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I. STAFF'S DE PROPOSALS OVERLOOK THE TRUE COSTS OF DE.

Until recently, discussions regarding DE costs did not investigate the shift of costs from one customer group to another. Public dialogue about DE, however, is changing. The following quotes sample some of the discourse occurring nationwide regarding DE:

- "Because the costs of maintaining the distribution system are not reflected in the price paid by utilities [for net metering], it results in a situation in which the remainder of the utilities' customers are indirectly subsidizing producers of renewable energy."[1]
- "The fact that net-energy metering customers are being subsidized by nonsolar customers is not sustainable in the long term."[2]
- "At issue is the way net metering shifts costs off those with solar and burdens those who do not have personal solar generation. This occurs because not only are net metering customers reimbursed for power they put back on the grid, they also avoid paying for grid services they still use."[3]
- "By not paying their fair share of these charges, net metering customers would make it necessary for their utility to raise rates to make up the shortfall, which would shift the burden of those costs onto customers without net metering."[4]

To find a balanced and sustainable solution to DE costs that protects the future of solar, Arizona must join this discussion.

Instead of addressing all costs associated with DE, the ROO focuses exclusively on the direct cash incentive administered through the REST Program. Based upon this narrow category of costs, the ROO concludes that a 10¢/watt incentive for residential PV results in a total cost per kWh of only 1.15¢. But this cost assessment is incomplete. It does not include the cost shifts being discussed throughout the country. Once those costs shifts are included, APS's preliminary analysis for a typical residential customer

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[1] David Abel, *Wind, solar subsidy in Mass. set for review*, Boston Globe, July 23, 2012, available at http://www.bostonglobe.com/metro/2012/07/22/renewable-energy-program-called-unfair-lawmakers-debate-its-expansion/UJjLcOHwz5UM5bxLwHhtHI/story.html (citations omitted).

[2] Melanie Turner, *Utilities: Solar customers don't pay fair share*, Sacramento Business Journal, March 16, 2012, available at http://www.bizjournals.com/sacramento/print-edition/2012/03/16/utilities-solar-users-dont-pay-enough.html?page=all (citations omitted).

[3] Travis Mitchell, *Net metering debate rages on*, FierceEnergy, June 18, 2012, available at http://www.fierceenergy.com/story/net-metering-debate-rages/2012-06-18.

[4] Jennifer Van Burkleo, *When Mom Said 'Life Isn't Fair,' She Meant Net Metering*, Electric Light & Power, 2012, available at http://www.elp.com/articles/powergrid_international/print/volume-17/issue-8/features/when-mom-said-life-isnt-fair-she-meant-net-metering.html (citations omitted).

indicates that avoiding retail rates adds approximately 12.1¢ to each kWh (net of avoided fuel costs) to the costs of DE. With unprecedented DE growth in 2012 and the approaching milestone of 25,000 DE installations, the magnitude of this subsidy grows every day. The ROO's paradigm shift would only exacerbate this trend.

A. The Various Incentives Embedded in DE and Net Metering Contribute to the "All-In" Costs of DE.

When an APS residential customer installs DE, the customer typically signs up for APS's EPR-6 Net Metering rate schedule. With a DE system and service under EPR-6, the customer begins receiving two incentives beyond the direct cash incentive administered under APS's RES Program.[5] The first incentive arises from the actual placement of DE behind the customer's meter. These Comments refer to this incentive as the Rate Offset. The second incentive occurs when customers with DE generate more electricity than they consume and carry forward that excess generation as a credit against future bills. These Comments refer to this second incentive as the Bill Credit.

1. The Rate Offset: customers with DE avoid contributing to APS's infrastructure; those without ultimately make up the difference.

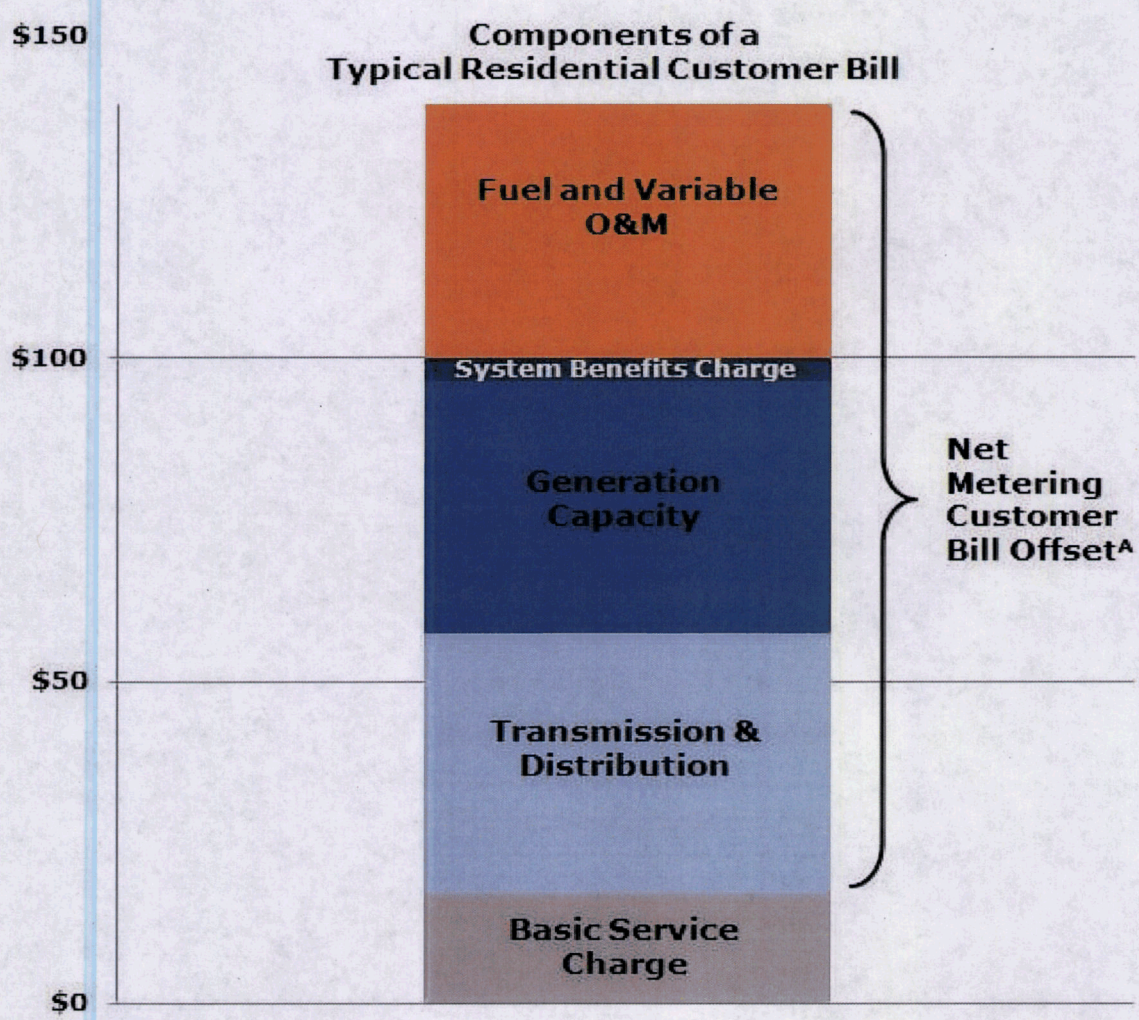
The Rate Offset permits a customer with DE to avoid paying their full retail rate for electricity. DE placed on the customer's side of the meter generates power. That power serves a portion of the customer's overall electricity needs. To the extent the customer relies on self-generated power, the customer does not receive or pay for power generated by APS.

Customers with DE avoid these payments, however, *even as they continue to rely on APS's generation and delivery infrastructure*. The moment a customer's DE facility stops producing energy—such as when clouds pass over or the sun sets on a rooftop solar unit—the customer immediately begins taking power from APS with no break in power quality. APS, as a Public Service Corporation with an obligation to serve, built its infrastructure to ensure that its customers could rely upon this kind of service. In

[5] These Comments focus on a typical residential customer as a means to explain the costs associated with DE because Staff's paradigm shift similarly focuses on residential PV. Most residential and commercial customers with DE, however, receive the incentives described in these Comments.

exchange, the Commission approves electric retail rates designed to collect APS's just and reasonable costs.

When customers with DE avoid those retail rates, they cease contributing to costs that all other APS customers pay. The following graphic demonstrates the components of a typical residential bill and the components that a customer with DE could avoid:



[A] *These are the bill components that a customer taking service under an ET-2 or E-12 Rate Schedule could avoid. Does not show applicable taxes or bill adjustors.*

The principal challenge with the Rate Offset and the Bill Credit is that they shift costs between customers. Customers with DE benefit from—but do not equitably contribute to—the costs needed to build, operate and maintain APS's existing infrastructure. In the

next rate case, those utility costs are reallocated in a manner that results in higher rates for customers without DE.

2. The Bill Credit: through over-production customers with DE avoid paying for power they actually consume.

The Commission's Net Metering rules require APS to credit a customer enrolled in Rate Schedule EPR-6 for all power generated in excess of the customer's load. Specifically, for each kWh of excess generation, the customer receives a credit that is automatically applied to kWh that the customer later consumes.[6] For a customer taking service under a Time of Use rate schedule, a net kWh generated during an on-peak hour is applied to credit the customer's bill for a kWh consumed in a subsequent on-peak hour.

Bill Credits can enable a customer to essentially receive electric service from APS for free. Customers can avoid paying the full retail rate, *even when the customer's DE facility is not producing any power*, simply by building up sufficient "credit" in APS's billing system through over-generation in prior hours. In addition to the Bill Credit, APS must "buy back" a customer's excess generation that remains at the end of the year.[7] APS "buys" this power back at an avoided cost rate.

3. The various subsidies encourage customers to over-size their DE systems.

The Commission's rules permit a customer to install a DE system that is equal to 125% of the customer's load.[8] APS is beginning to see both residential and business customers installing DE systems that are larger than 100% of their peak usage. With a larger system, customers with DE increase their subsidy in four ways. First, a larger system permits the customer to avoid a larger portion of the retail rate while the system is running. Second, a larger system is more likely to generate excess power that provides a customer with credits that are applied to kWh consumed later. Third, larger systems make it more likely that a customer with DE receives a check from APS at the end of

[6] Arizona Administrative Code R14-2-2306(D); *see* APS Rate Schedule EPR-6.
[7] A.A.C. R14-2-2306(F).
[8] A.A.C. R14-2-2302(13)(d).

each year. Fourth, a larger system results in a larger direct cash incentive through the REST because the incentive amount is tied to the size of the system. Thus, the rules incent customers to build the largest system possible. And with larger systems come more costs ultimately borne by customers without DE.

B. The ROO's DE-Related Proposals Should be Declined Because They Overlook Costs Ultimately Borne by Customers Without DE.

Based upon the assumption that DE is the least cost renewable resource, the ROO offers several DE-related recommendations for APS's 2013 REST Program. The most prominent proposal is the paradigm shift. This shift would cause APS to procure as much DE as possible to fulfill APS's REST requirement. The proposed paradigm would even cause APS to procure DE beyond the 30% DE carve-out, and procure DE today, even if APS did not need additional DE for compliance until 2020 or beyond.

The assumption underlying the proposed paradigm shift is that the levelized cost of the direct cash incentive results in the lowest cost per renewable kWh. This assumption, however, only considers those costs collected through the REST. Viewed from the perspective of customers without DE, and considering all costs, the proposed paradigm shift would intensify the redistribution of costs described above and entrench an unsustainable subsidy.

Several of the ROO's other DE-related proposals would similarly compound the DE subsidy. Those proposals include (i) a schedule that would redirect unspent or unallocated REST funds to the various DE programs according to certain percentages;[9] (ii) a 2013 budget for residential and commercial DE programs totaling approximately $10 million;[10] (iii) additional residential PV cash incentives in 2013;[11] (iv) a 15 MW commercial Production-Based Incentive program in 2013 that would add $20.7 million to the existing $765.8 million lifetime PBI commitment;[12] and (v) cancelling APS's

[9] *See* ROO, Finding of Fact Nos. 91-92, pp. 22-23.
[10] ROO, Finding of Fact No. 77, p. 21.
[11] ROO, Finding of Fact No. 76, p. 21.
[12] ROO, Finding of Fact Nos. 85 and 93, pp. 22-23.

Qualified Solar Installer program and reallocating the $350,500 QSI budget to further fund residential PV direct cash incentives.[13]

Each of these proposals assumes that DE is the least cost means to acquire renewable energy. But that conclusion overlooks all costs associated with DE. Net metering and the current rate structure heavily subsidize DE. The ROO's pursuit of DE on all fronts would deepen the effect of this subsidy and exacerbate inequitable cost shifting. Further, APS does not need additional DE for compliance. Current DE installations and authorizations will ensure that APS meets its residential DE requirement through 2015 and its commercial DE requirement through at least 2019.

Incenting more DE now is unnecessary. And given the associated costs, expanding DE under the current regulatory structure is not a long term viable strategy for APS and its customers. APS requests that the Commission decline to adopt the DE-related proposals identified above. APS further requests that the Commission eliminate direct cash incentives for DE by adopting APS's originally proposed DE Option One.

C. All Stakeholders Can Carefully Assess the Costs and Benefits of DE in a Technical Conference Outside of this Proceeding.

The evaluation of DE's costs and benefits is complicated and APS acknowledges that other perspectives exist. For instance, does DE provide some benefit to APS customers? The traditional notion is that it does—DE provides an incremental energy savings and, in the right circumstances, permits APS to defer an incremental amount of generation capacity. These two values—energy and capacity—combine to form the concept of "avoided costs." But even beyond avoided costs, does DE provide additional, economic or social value? Or is it within the Commission's purview to craft DE policy for the purpose of accomplishing non-energy related goals? Should Arizona adopt a policy of promoting DE for its perceived economic benefits, or is paying for DE through utility rates an inefficient means to redistribute economic obligations?

[13] ROO, Finding of Fact No. 78, p. 21.

The initial discussion regarding these questions began with a study undertaken by RW Beck in 2009. The RW Beck Study sought to demonstrate a perspective on a value of solar under certain circumstances. But this perspective was based upon an early understanding of how DE would impact APS's system. For instance, the study assumed a total DE presence of 200 MW on APS's system by 2025. By contrast, APS currently has 230 MW of DE on its system, and at the current pace, could add close to 200 MW every few years. Another example is that RW Beck assumed, without a comprehensive analysis, that DE in sufficient concentrations would permit APS to avoid distribution costs. APS's experience with DE, however, demonstrates that DE places a sufficiently similar demand on distribution feeders such that APS must incur similar distribution costs with or without DE.

The RW Beck Study was the starting point of this discussion. But it reflected an early and incomplete understanding of DE and the solar industry based upon only a few hundred installations and a narrow window of time. Now, with thousands and thousands of installations and a wealth of data, the conversation is poised to resume.

To facilitate the conversation and address DE, APS intends to hold a multi-session technical conference, open to all stakeholders, in the first part of 2013. To assist all stakeholders in their assessment of DE, APS will file a report being prepared by Navigant Consulting that will provide additional information regarding net metering bill impacts and DE cross-subsidies. Armed with this report, the conference would allow participants to understand and discuss the spectrum of costs and benefits associated with DE and attempt to forge a collaborative solution. From APS's perspective, this solution should rest on three primary pillars: (i) an equitable and balanced distribution of costs and benefits; (ii) subsidies, if any, that are transparent; and (iii) a sustainable means for solar to continue in Arizona. The initial technical conference session would commence no later than January 18, 2013 with subsequent sessions occurring every other week thereafter through April 2013. At the end of all sessions, APS will file either a jointly-

developed solution on behalf of all participants, or an individual application seeking to otherwise address DE if a consensus does not emerge during the technical conference.

II. APS GENERALLY SUPPORTS THE ROO'S REMAINING RECOMMENDATIONS, BUT REQUESTS SOME CLARIFICATIONS.

These Comments do not address those recommendations that APS supports or does not oppose. APS requests clarification, however, regarding Staff's recommendations in four areas: (i) Track and Record; (ii) changes to the 2012 third-party Schools and Government Program budget; (iii) reallocating 2012 incentive funds in 2012; and (iv) APS's Green Power rate schedule.

Regarding Track and Record, APS seeks clarification that the ROO contemplates APS tracking and recording energy produced by all DE systems, not just residential PV. In proposed Finding of Fact No. 17, the ROO states that APS should use Track and Record for "residential PV."[14] But in proposed Finding of Fact No. 86, the ROO recommends that the Commission approve Track and Record and does not specify any limitation on the type of DE for which APS would track and record energy.[15] APS requests clarification that Finding of Fact No. 86 reflects the ROO's actual recommendation. If the ROO recommends that APS implement Track and Record for all DE types in the absence of a direct cash incentive, APS fully supports the ROO's position regarding Track and Record.

Regarding APS's 2012 third-party Schools and Government Program, the ROO proposes (i) an overall 2013 budget of $29.5 million;[16] (ii) reducing PBI incentive caps for 15 year contracts to $0.09/kWh and 20 year contracts to $0.085/kWh;[17] and (iii) increasing the lifetime PBI commitment by $6 million.[18] These proposals, however, may jeopardize a successful 2012 third-party Schools and Government Program. As the Commission likely recalls, APS's 2012 Schools and Government Program is intended to

[14] ROO at p. 5.
[15] ROO at p. 22.
[16] ROO, Finding of Fact No. 84, pp. 21-22.
[17] ROO, Finding of Fact 82, p. 21.
[18] ROO, Finding of Fact 84, pp. 21-22.

contribute 18.75 MW to APS's compliance with Decision No. 71448. In order to fund 18.75 MW, however, a $29.5 million budget would create a de facto bid cap at or below $0.06/kWh. Given the market for school DE projects, it is not clear that projects under APS's 2012 third-party Schools and Government Program would be installed at $0.06/kWh. APS requests clarification that the ROO intended for its proposed PBI caps of $0.09/kWh and $0.085/kWh to govern the program, and that the ROO intended a sufficient budget to make those caps realistic.

Staff proposes reallocating uncommitted 2012 RES funds in November 2012 according to Staff's least cost methodology.[19] 2012 RES funds, however, were the subject of a separate Application in APS's 2012 RES Program upon which the Commission has already acted.[20] With the Commission's decision in the 2012 docket, APS requests clarification that this proposal is moot.

Finally, APS requests clarification that the Commission intends to approve Staff's pending recommendation regarding APS's Green Power rate schedule. Before the Green Power docket and the 2013 REST docket were consolidated, Staff issued a Recommended Opinion and Order on May 9, 2012 recommending that the Commission adjust APS's current Green Power rate from $0.004 to $0.011 through 2013.[21] APS requests clarification that, in addition to addressing the ROO, the Commission intends to approve this pending recommendation and adjust APS's Green Power rate schedule to $0.011 through 2013. As acknowledged by the ROO,[22] APS intends to add its previously-approved 25 MW Community Solar Program to its Green Power rate schedule effective January 2014. APS intends to file a refreshed Green Power rate schedule reflecting this addition as part of its 2014 RES Implementation Plan.

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[19] ROO, Finding of Fact No. 91, p. 22.
[20] *See* Application to Modify Residential Incentives, Docket No. E-01345A-11-0264 (October 16, 2012).
[21] *See* Recommended Opinion and Order, Docket No. E-01345A-10-0394.
[22] *See* ROO, Finding of Fact No. 53, p. 16.

III. CONCLUSION

APS is Arizona's leader in solar energy. As part of its leadership role, APS has a responsibility to address the costs of DE for all of its customers. The current trajectory of DE subsidies is accumulating costs that will inevitably result in higher rates. Avoiding this outcome requires a transparent and equitable structure that balances costs and benefits between customers.

As the first step down this path, APS requests that the Commission decline to determine that DE is the least cost renewable resource. A full exploration of DE and net metering can then commence in an expedited technical conference that involves all stakeholders. After collaborating with all interested parties, APS will file either a jointly-developed solution, or an individual application, to address the impact of DE on APS and its customers.

In addition, APS disagrees with the ROO's DE-related proposals that are predicated on the incorrect assumption that DE offers the least cost means for APS to acquire renewable kWh. APS requests that the Commission decline those proposals and instead adopt APS's DE Option One.

Finally, APS requests clarification regarding the specific elements of the ROO discussed in the body of these Comments.

Based upon the foregoing, APS incorporates by reference its June 29, 2012 prayer for relief and, in light of the ROO, further requests that the Commission:

1. Decline the ROO's Paradigm Shift to the extent it prioritizes DE in the acquisition of renewable energy;
2. Proceed with this 2013 REST Implementation Plan approval and shift discussions regarding the costs of DE into the 2013 technical conference;
3. Approve DE Option One, as discussed in the Plan, and the associated REAC-1 Adjustment Schedule;
4. Approve APS's transition to demonstrating compliance with DE requirements through tracking and recording DE production as discussed in the Plan;

5. Approve a lifetime PBI commitment for the 2012 Schools and Government program with a budget sufficient to permit the ROO's recommended bid caps; and

6. Approve the adjustment of the current Green Power rate schedule as recommended in Staff's May 9, 2012 Recommended Opinion and Order in Docket No. E-01345A-10-0394.

RESPECTFULLY SUBMITTED this 15th day of November, 2012.

By: _____
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ORIGINAL and thirteen (13) copies of the foregoing filed this 15th day of November, 2012, with:

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